Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (previously presented) A linear motor glide apparatus, comprising:

   a unitary bearing rail structure providing with an array of magnets disposed on a surface thereof, the bearing rail structure exhibiting bearing rail surfaces for receiving bearings to roll against the surfaces;

   bearing block assemblies comprising bearings position-able to roll against the bearing rail surfaces of the bearing rail structure; and

   one or more connecting structures adapted to affix a linear motor coil assembly thereto and to which a plurality of the bearing block assemblies are mounted.

2. (original) The apparatus of claim 1, wherein one or more of the connecting structures conducts heat away from the linear motor coil assembly.

3. (original) The apparatus of claim 1, wherein one or more of the connecting structures exhibits, for a specified temperature range, a coefficient of thermal expansion that is substantially less than a coefficient of thermal expansion of a material which the linear motor coil assembly is comprised for the specified temperature range.

4. (original) The apparatus of claim 3, wherein the one or more connecting structures is mounted to a bearing block assembly by bolts inserted into bolt holes with a radial clearance sufficient to enable adjustment of a position of a bearing of the bearing block assembly relative to a bearing rail surface exhibited by the bearing rail structure.

5. (previously presented) The apparatus of claim 1, wherein the linear motor coil assembly comprises aluminum and a connecting structure exhibits, for a specified temperature range, a linear coefficient of thermal expansion that is substantially less than a linear coefficient of thermal expansion of aluminum for the specified temperature range.

6. (original) The apparatus of claim 5, wherein a connecting structure is mounted to a bearing block assembly by bolts inserted into bolt holes with a radial clearance sufficient to enable adjustment of a position of a bearing of the bearing block assembly relative to a bearing rail surface exhibited by the bearing rail structure.

7. (previously presented) The apparatus of claim 1, wherein a mechanism for mounting the linear motor coil assembly to a connecting structure enables the linear motor coil assembly to exhibit an amount of thermal expansion, for a specified temperature increase, that substantially exceeds an amount of thermal expansion exhibited by the connecting structure for the specified temperature increase.

8. (original) The apparatus of claim 1, wherein the bearing rail structure further comprises position indicator marks enabling detection by sensors of a position of the linear motor assembly.

9. (previously presented) A method of constructing a linear motor assembly, comprising the steps of:

providing a unitary bearing rail structure that exhibits a surface for upon which an array of magnets is disposed, the bearing rail structure exhibiting bearing rail surfaces for receiving bearings to roll against the surfaces;

providing bearing block assemblies comprising bearings position-able to roll against the bearing rail surfaces of the bearing rail structure; and

providing one or more connecting structures adapted to affix a linear motor coil assembly thereto and to which a plurality of the bearing block assemblies are mounted.

10. (original) The method of claim 9, wherein one or more of the connecting structures conducts heat away from the linear motor coil assembly.

11. (original) The method of claim 9, wherein one or more of the connecting structures exhibits, for a specified temperature range, a coefficient of thermal expansion that is substantially less than a coefficient of thermal expansion of a material which the linear motor coil assembly is comprised for the specified temperature range.

12. (original) The method of claim 11, wherein the one or more connecting structures is mounted to a bearing block assembly by bolts inserted into bolt holes with a radial clearance sufficient to enable adjustment of a position of a bearing of the bearing block assembly relative to a bearing rail surface exhibited by the bearing rail structure.

13. (previously presented) The method of claim 9, wherein the linear motor coil assembly comprises aluminum and a connecting structure exhibits, for a specified temperature range, a linear coefficient of thermal expansion that is substantially less than a linear coefficient of thermal expansion of aluminum for the specified temperature range.

14. (original) The method of claim 13, wherein a connecting structure is mounted to a bearing block assembly by bolts inserted into bolt holes with a radial clearance sufficient to enable adjustment of a position of a bearing of the bearing block assembly relative to a bearing rail surface exhibited by the bearing rail structure.

15. (original) The method of claim 9, wherein a mechanism for mounting the linear motor coil assembly to a connecting structure enables the linear motor to exhibit an amount of thermal expansion, for a specified temperature increase, that substantially exceeds an amount of thermal expansion exhibited by the connecting structure for the specified temperature increase.

16. (original) The method of claim 9, further comprising the step of providing an anti-cogging mechanism for reducing a cogging force exhibited by the linear motor.

17. (previously presented) The method of claim 9, further comprising an anti-cogging mechanism comprising a coil wrapped about a core, and wherein a current to reduce the cogging force is applied to the coil.

18. (currently amended) A method for reducing a cogging force exhibited by a linear motor, comprising the steps of:

providing a core element ~~with windings wrapped around the core element~~ positioned at an end of a core of the linear motor to move with the core; and

windings wrapped around the core element so that current induced in the windings provides an anti-cogging force.~~; and~~

~~positioning said core element to create a force acting in opposition to the cogging force.~~

19. (previously presented) The method of claim 18, further comprising a current source to apply current to the windings ~~wherein a current~~ to reduce the cogging force ~~is applied to the windings of the core element~~.

20. (previously presented) The method of claim 18, comprising the steps of:

providing a unitary bearing rail structure that exhibits a surface upon which an array of magnets is disposed, the bearing rail structure exhibiting bearing rail surfaces for receiving bearings to roll against the surfaces;

providing bearing block assemblies comprising bearings positioned to roll on the bearing rail surfaces of the bearing rail structure; and

providing one or more connecting structures adapted to affix a linear motor coil assembly thereto and to which a plurality of the bearing block assemblies are mounted.